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March 14, 2000

Mr. Paul Spor
Tintic Utah Metals LLC
15988 Silver Pass Road
P.O. Box 51
Eureka, UT 84628

Dear Mr. Spor:

Subject: Proposed Tintic Facility Ground Water Investigation

I have reviewed your proposed plan for ground water investigation at the Tintic Utah Metals dry stack tailings site. You propose to drill a test hole (DT-3) downgradient of the tailings storage site and sedimentation pond, to the depth of the uppermost ground water. If water is encountered in the perched zone, most likely 100 to 300 feet below ground surface, you intend to complete the drill hole as a monitoring well and drill another well into this same zone upgradient of the facilities. If no water is encountered in the perched zone you propose drilling to a maximum depth of about 900 to 1000 feet to demonstrate that no ground water exists above the regional geothermal aquifer, which should be encountered at about that depth. If no ground water is detected above the geothermal aquifer, you propose plugging and abandoning the drill hole.

The main reason for studying the ground water under the site is to determine whether the uppermost ground water, which will receive any discharge from the proposed facilities, is of a quality where any beneficial uses of the ground water would not be harmed by the discharge. As such, it is important to evaluate the quality of this ground water. At the very least, if the drill hole is advanced to depths near 1000 feet before any ground water is encountered, you will need to obtain an uncontaminated sample of this ground water to show whether it is compatible with the discharged water. We would prefer that in this situation you complete the drill hole as a monitor well. In this way, the validity of the sample can be assured and the well will be available for sampling if the need ever arises.

In a separate communication you have stated that you will use good-quality water for the milling process rather than poor-quality water from the geothermal aquifer. This could allow for a discharge into ground water that is of equal or poorer quality to qualify for ground water discharge permit by rule, so an individual permit would not need to be drafted and go to public notice. This determination would be made based on a comparison of the chemistry of the discharge and the chemistry of the receiving ground water. Please supply us with a chemical analysis of total dissolved solids, major



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ions and metals in the intended process water, and also the receiving ground water and also the receiving ground water, so we can make this comparison.

Several scenarios are possible for regulation of this site depending on the results of the investigation. If the discharge is compatible with the quality of the uppermost ground water underlying the facility, the facility will qualify for permit-by rule. If the discharge is not compatible with the receiving ground water, its effects on ground water quality would need to be evaluated on a regular basis under a monitoring program which would be a condition of a ground water discharge permit. In your study plan you propose to drill an upgradient monitor well if perched water, presumably of good quality, is encountered in DT-3. Based on what is currently known about site conditions, these two wells are probably adequate if ground water monitoring is necessary. Therefore, you do not need to drill the proposed upgradient monitor well until after we can make the comparison of process water chemistry with that of the receiving ground water.

Please contact me if you have any questions or if you need DWQ's judgements before you move to a new phase of this proposed study.

Sincerely,

Mark T. Novak

Mark Novak, Environmental Scientist
Ground Water Protection Section

MN:fb

cc: Central Utah Health Dept.
Wayne Hedberg, DOGM

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FILE:TINTIC UTAH METALS